M-88V

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model

Model Name Using Similar Mechanism	M-750V
Tape Transport Mechanism Type	MZ-88-14

SPECIFICATIONS

Tape	(MICROCASSETTE)™ (normal position type)
Recording system	2-track 1-channel monaural
Speaker	Approx. 2.3 cm (29/32 inches) dia.
Tape speed	2.4cm/s (15/16 ips), 1.2cm/s (15/32 ips)
Frequency response	250-4,000 Hz (at 2.4 cm position)
Input/output	Earphone/microphone jack (minijack) Input: sensitivity 0.3mV for 3 kilohm or lower impedance microphone (PLUG IN POWER) Output: for 8-300 ohm earphone
Power output	180mW (at 10% harmonic distortion)
Battery life (recording)	Sony UM-4 (NU): Approx. 2.5 hours Sony AM4 (N): Approx. 7 hours
Power requirement	3V DC, two R03 (size AAA) batteries
Dimensions	Approx. 63 × 92.9 × 26.7 mm (w/h/d) (2½ × 3¾ × 1 1/16 inches) incl. projecting parts and controls
Weight	Approx. 160g (5.7 oz) incl. batteries
Accessories supplied	Remote control microphone (1), Earphone microphone (1), Carrying case (1), Handstrap (1)

Design and specifications subject to change without notice.

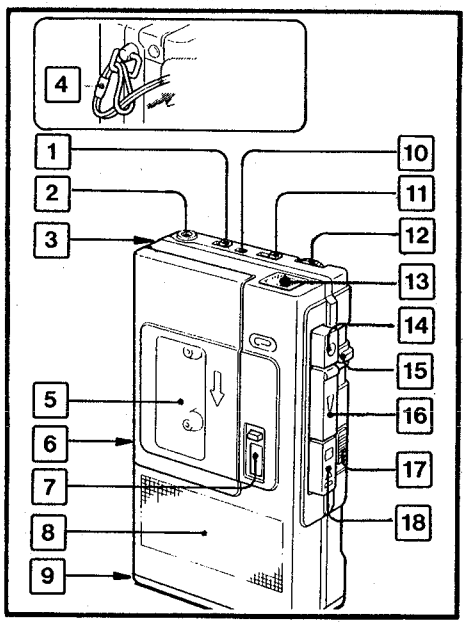
MICROFILM

Microcassette™-Corder

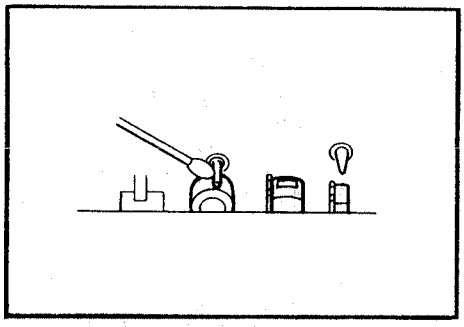
SONY®

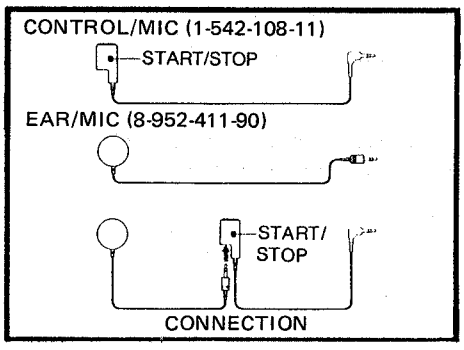
SECTION 1
GENERAL

1 **VOR (voice operated recording) switch**
2 **EAR/MIC (earphone/microphone) jack**
3 **Handstrap catch**
4 **Handstrap** (supplied)
5 **Cassette holder**
6 **TAPE SPEED selector** (left side)
7 **Tape counter**
8 **Speaker**
9 **Battery compartment** (bottom)
10 **REC/BATT (record/battery) indicator**
11 **MIC SENS (microphone sensitivity) switch**
12 **VOL (volume) control**
13 **MIC (built-in microphone)**
14 **● (record) button**
15 **◀◀ ▶▶ CUE (fast forward)/REVIEW (rewind) switch**
16 **▼ (playback) button**
17 **PAUSE switch**
18 **■/⏏ (stop/eject) button**



Cleaning the head
Prolonged use may contaminate the tape head. To enjoy optimum sound, wipe the parts shown with a cotton swab moistened with alcohol after every 10 hours of use.





SERVICING NOTES

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SECTION 2
ADJUSTMENTS

2-1. MECHANICAL ADJUSTMENT AND MEASUREMENT

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:

   record/playback head — pinch roller
   erase head — rubber belts
   capstan

2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Power supply voltage: 3 V dc
TAPE SPEED switch: 2.4 cm

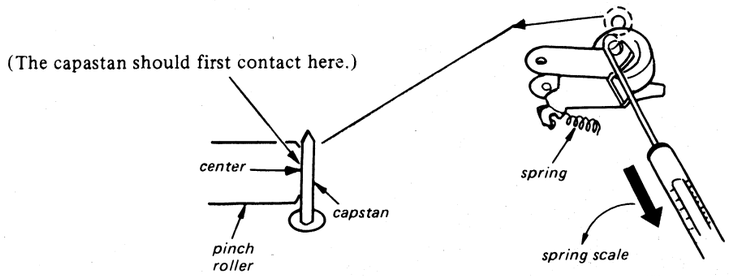
Torque Measurement

Mode	Meter Reading	Torque Meter
Forward	5 to 13 g·cm (0.07 to 0.18 oz·inch)	CQ-103M
Fast Forward	5 to 13 g·cm (0.07 to 0.18 oz·inch)	CQ-201M
Rewind	more than 15 g·cm (more than 0.21 oz·inch)	

Pinch Roller Pressure Adjustment

– Playback Mode –

Slowly return the pinch roller and read the spring scale just when the pinch roller starts rotating.



2-2. ELECTRICAL ADJUSTMENTS

Standard Input Level

	MIC
source impedance	600 Ω
input level	0.77 mV (–60 dB)
input frequency	1 kHz

Standard Output Level

	EARPHONE
load impedance	10 kΩ
output level	0.24 mV (–10 dB)

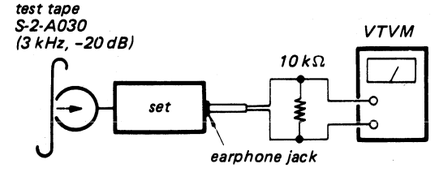
Record/playback Head Azimuth Adjustment

Setting:

VOLUME control: mechanical mid
TAPE SPEED switch: 2.4 cm/s
VOR switch: OFF

Procedure:

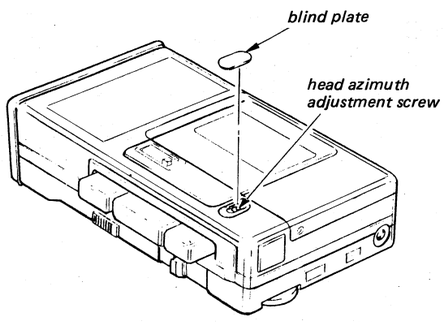
1. Mode: playback



2. Turn the adjustment screw to obtain the maximum reading on VTVM.

   Note: Several peaks may appear, but take the maximum.

Adjustment Location:



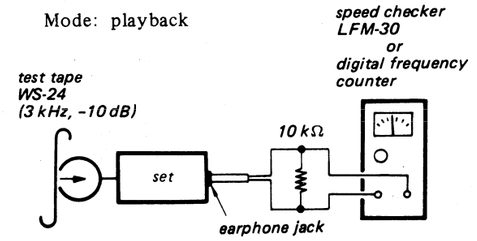
Tape Speed Adjustment

Setting:

VOLUME control: mechanical mid
VOR switch: OFF

Procedure:

Mode: playback

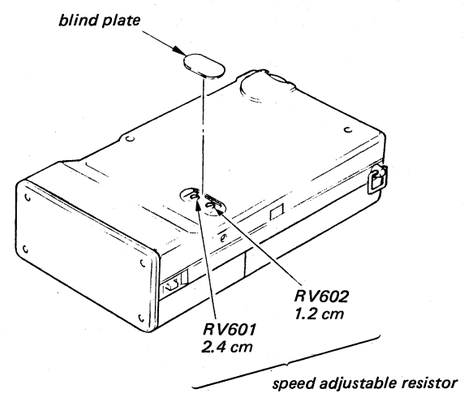


Specification:

Tape speed	Speed checker	Digital frequency counter
2.4 cm/s	±0.5%	2,985 to 3,015 Hz
1.2 cm/s	±0.5%	1,492 to 1,508 Hz

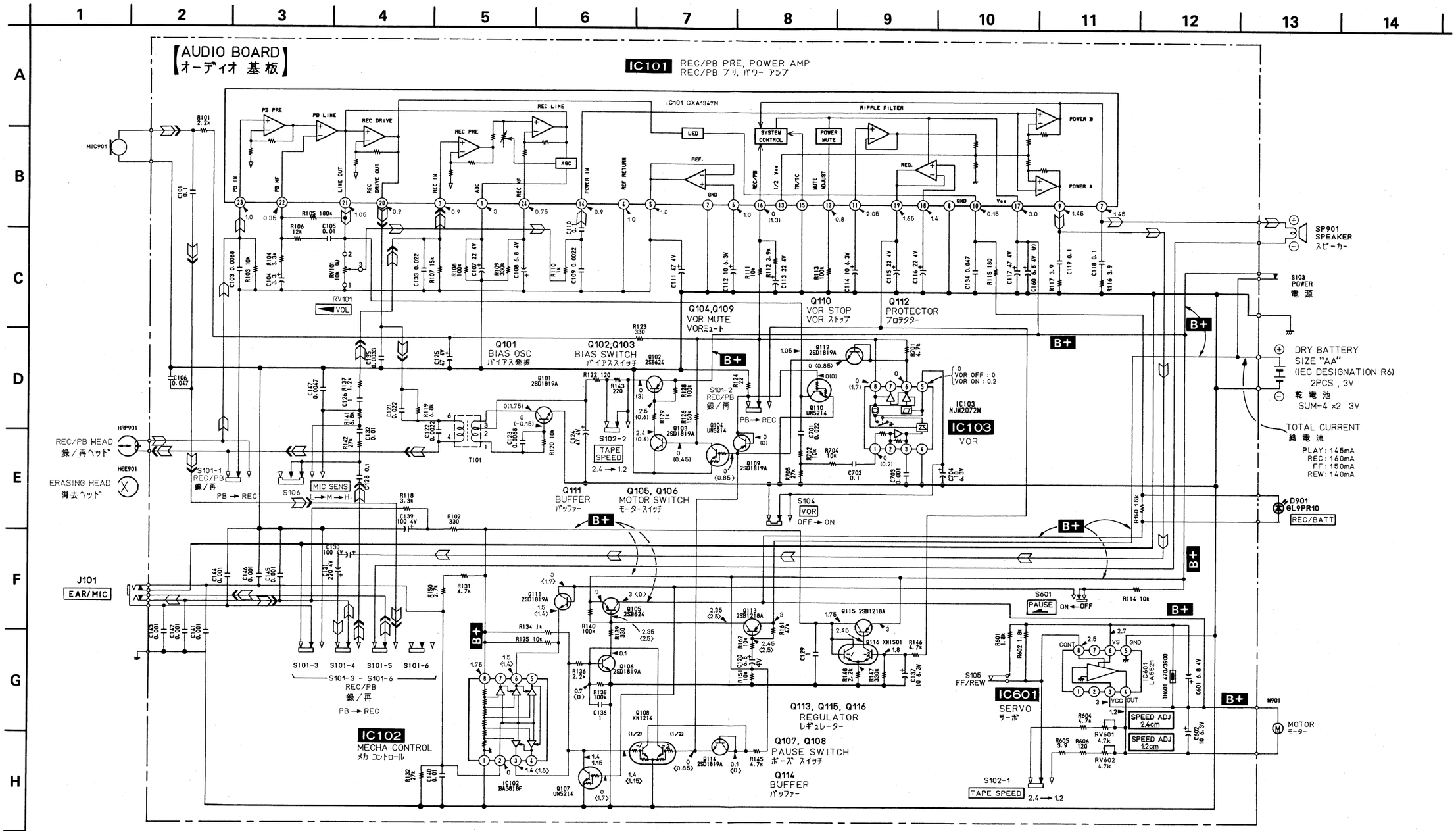
Frequency difference between the beginning and the end of the tape should be within 2%.
2.4 cm/s (60 Hz)
1.2 cm/s (30 Hz)

Adjustment Location:



SECTION 3
DIAGRAMS

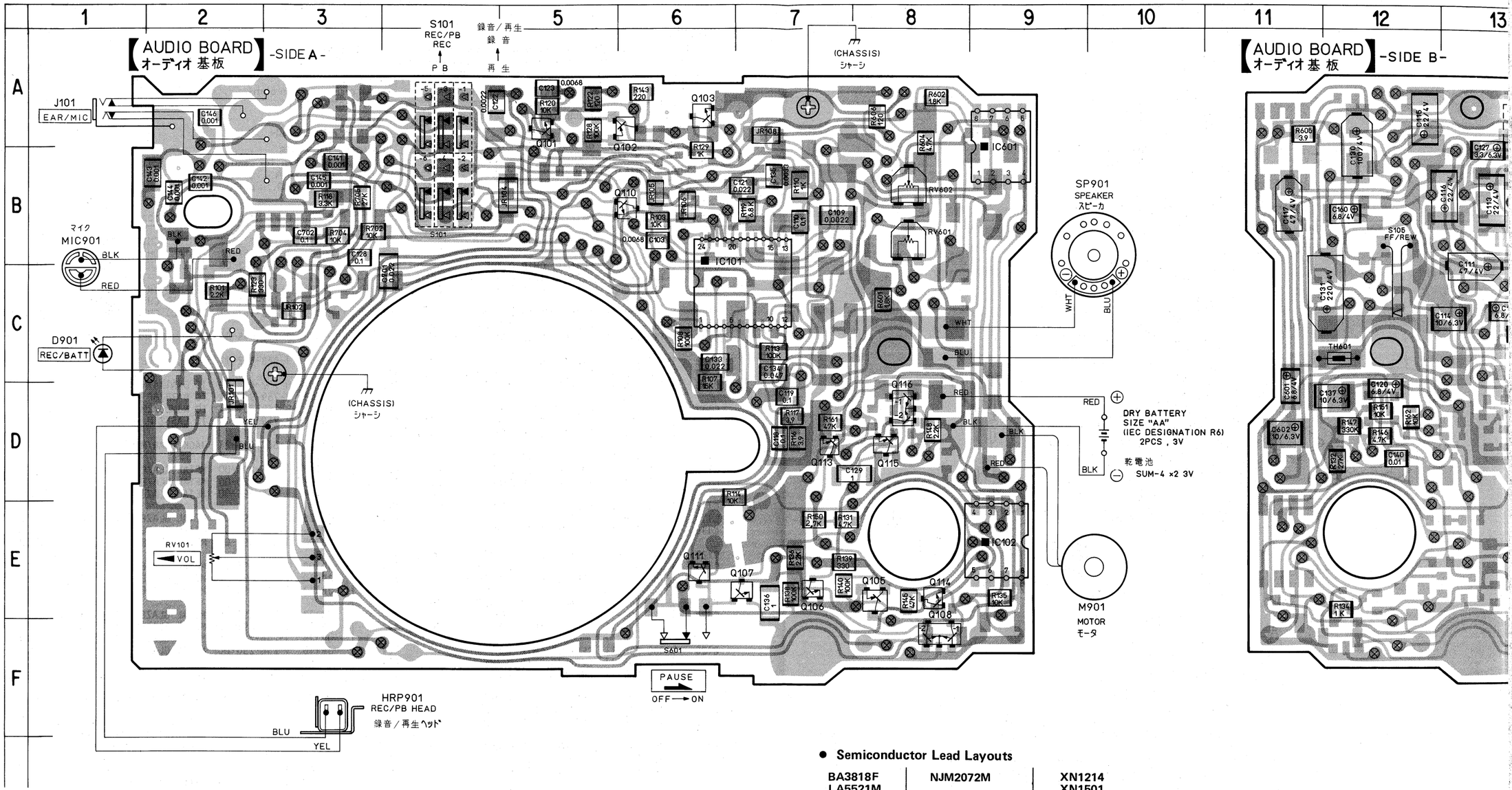
3-1. SCHEMATIC DIAGRAM


【AUDIO BOARD】
【オーディオ 基板】
IC101 REC/PB PRE, POWER AMP
REC/PB プリ, パワー アンプ
IC101 CXA1347M
MIC901
RV101 VOL
SP901 SPEAKER スピーカー
S103 POWER 電源
DRY BATTERY SIZE "AA" (IEC DESIGNATION R6) 2PCS, 3V 乾電池 SUM-4 ×2 3V
TOTAL CURRENT 総電流
PLAY: 145mA
REC: 160mA
FF: 150mA
REW: 140mA
D901 GL9PR10 REC/BATT
Q104,Q109 VOR MUTE VORミュート
Q110 VOR STOP VOR ストップ
Q112 PROTECTOR プロテクター
Q101 BIAS OSC バイアス発振
Q102,Q103 BIAS SWITCH バイアススイッチ
IC103 NJM2072M
IC103 VOR
VOR OFF : 0
VOR ON : 0.2
HRP901 REC/PB HEAD 録/再ヘッド
HEE901 ERASING HEAD 消去ヘッド
S101-1 REC/PB 録/再 PB → REC
S101-2 REC/PB 録/再 PB → REC
S102-2 TAPE SPEED 2.4 → 1.2
S106 MIC SENS M → H
T101
Q111 BUFFER バッファー
Q105, Q106 MOTOR SWITCH モータースイッチ
S104 VOR OFF → ON
J101 EAR/MIC
S101-3 S101-4 S101-5 S101-6 S101-3 - S101-6 REC/PB 録/再 PB → REC
IC102 MECHA CONTROL メカ コントロール
IC102 BA3818F
Q107, Q108 PAUSE SWITCH ポーズ スイッチ
Q113, Q115, Q116 REGULATOR レギュレーター
Q114 BUFFER バッファー
S601 PAUSE ON → OFF
S105 FF/REW
IC601 SERVO サーボ
IC401 LA6521
S102-1 TAPE SPEED 2.4 → 1.2
SPEED ADJ 2.4cm
SPEED ADJ 1.2cm
M901 MOTOR モーター
B+
1 2 3 4 5 6 7 8 9 10 11 12 13 14
A B C D E F G H I

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- Power voltage is dc 3 V and fed with regulated dc power supply from external power voltage jack.
- Voltage and waveforms are dc with respect to ground in playback mode.
  no mark: PLAY
  ( ): REC
  < >: PAUSE
- Voltages are taken with a VOM (50 kΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM ⇒ : PB (DECK A)
  ⇒⇒ : REC (DECK A)
- Switch

Ref. No.	Switch	Position
S101	REC/PB	PB
S102	TAPE SPEED	2.4 cm
S103	POWER	ON
S104	VOR	OFF
S105	FF/REW	OFF
S106	MIC SENS	L
S601	PAUSE	OFF

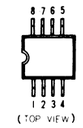


● **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D901	C-1	Q106	E-7
		Q107	E-7
IC101	C-7	Q108	F-8
IC102	E-9	Q109	B-14
IC103	C-17	Q110	B-6
IC601	B-9	Q111	E-6
		Q112	C-17
Q101	B-5	Q113	D-8
Q102	B-6	Q114	F-8
Q103	A-6	Q115	D-8
Q104	B-14	Q116	D-8
Q105	F-8		

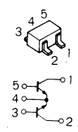
● **Semiconductor Lead Layouts**

BA3818F
LA5521M

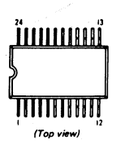


NJM2072M

XN1214
XN1501

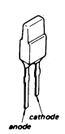


CXA1347N



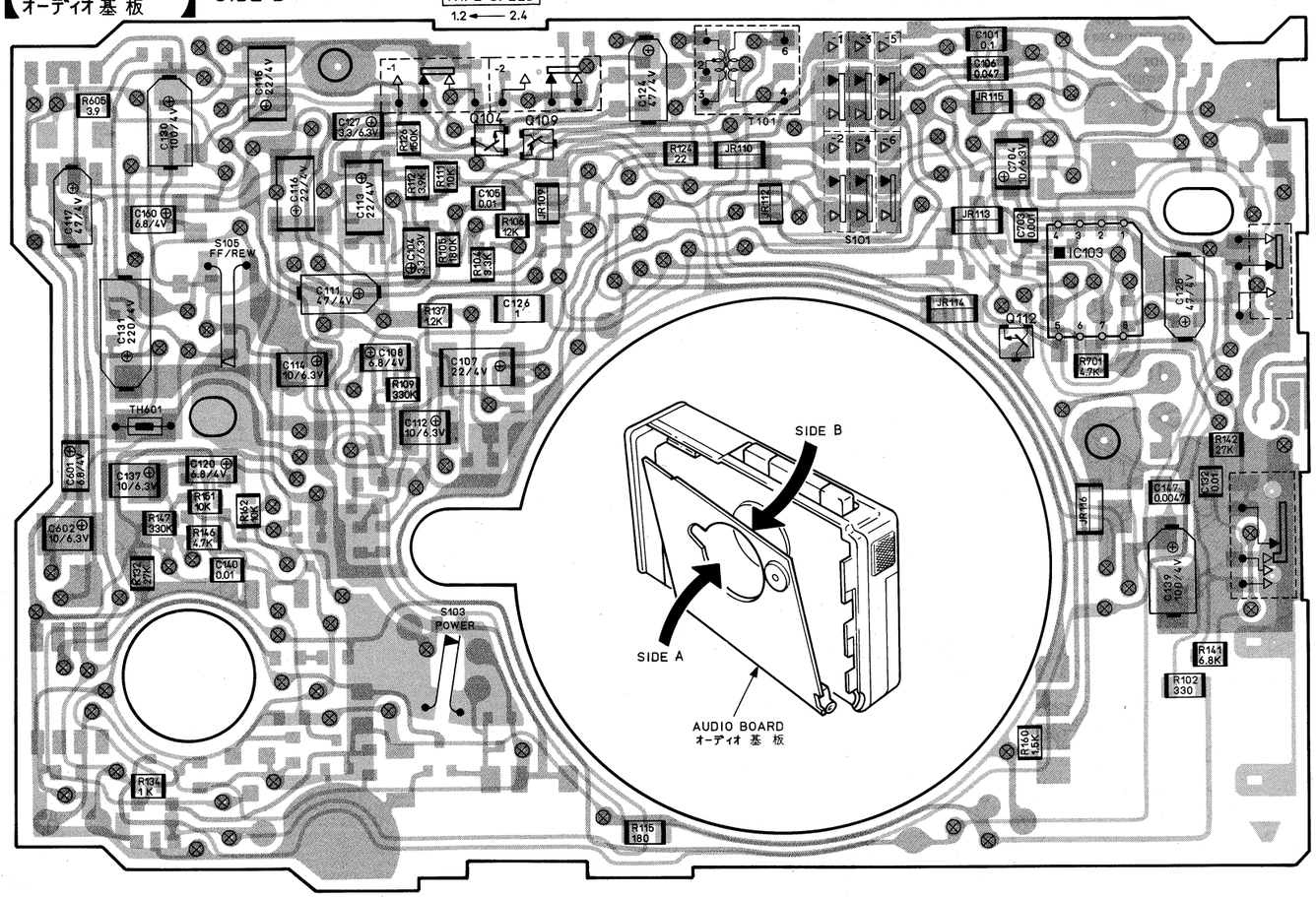
UN5214
2SB624
2SB1218A-R
2SD1819AQ

GL-9PR10



10 11 12 13 14 15 16 17 18 19

【AUDIO BOARD オーディオ基板】-SIDE B-



SP901
SPEAKER
スピーカ

M901
MOTOR
モータ

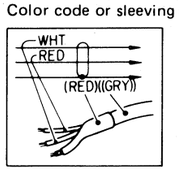
RED
BLK
DRY BATTERY
SIZE "AA"
(IEC DESIGNATION R6)
2PCS , 3V
乾電池
SUM-4 ×2 3V

1214
1501

9PR10

Note:

- Color code or sleeving over the end of the jacket.



- ○—— : parts extracted from the component side.
- ●—— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.
- ⊗ : Through hole.

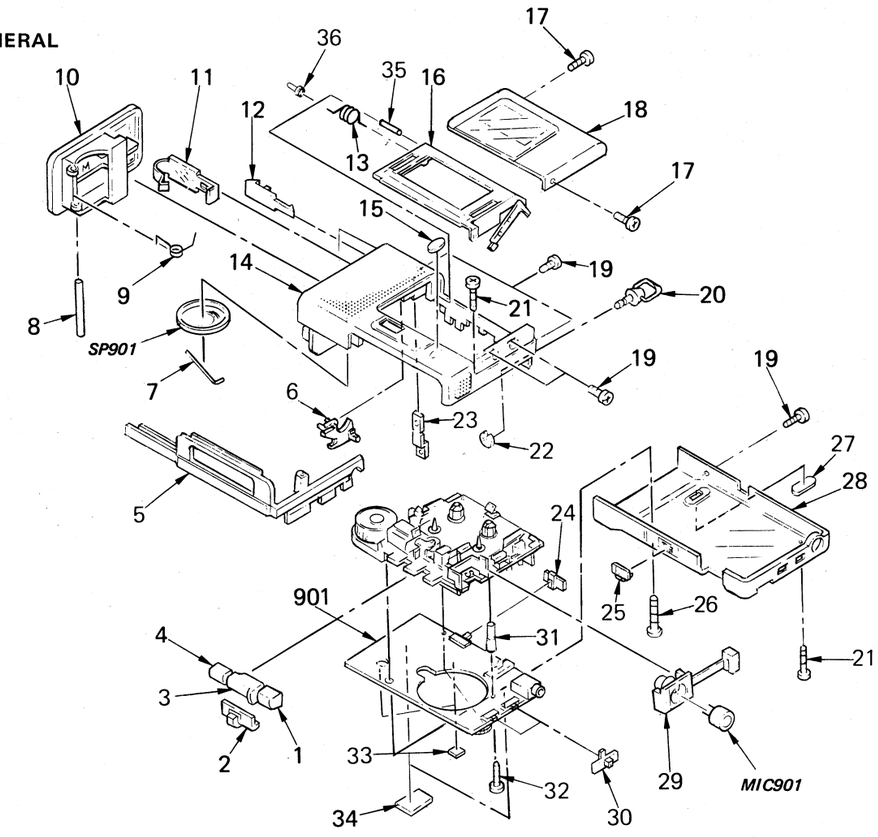
- ▒▒ : Pattern on the side which is seen.
- ▒▒ : Pattern of the rear side.

SECTION 4
EXPLODED VIEWS

NOTE:

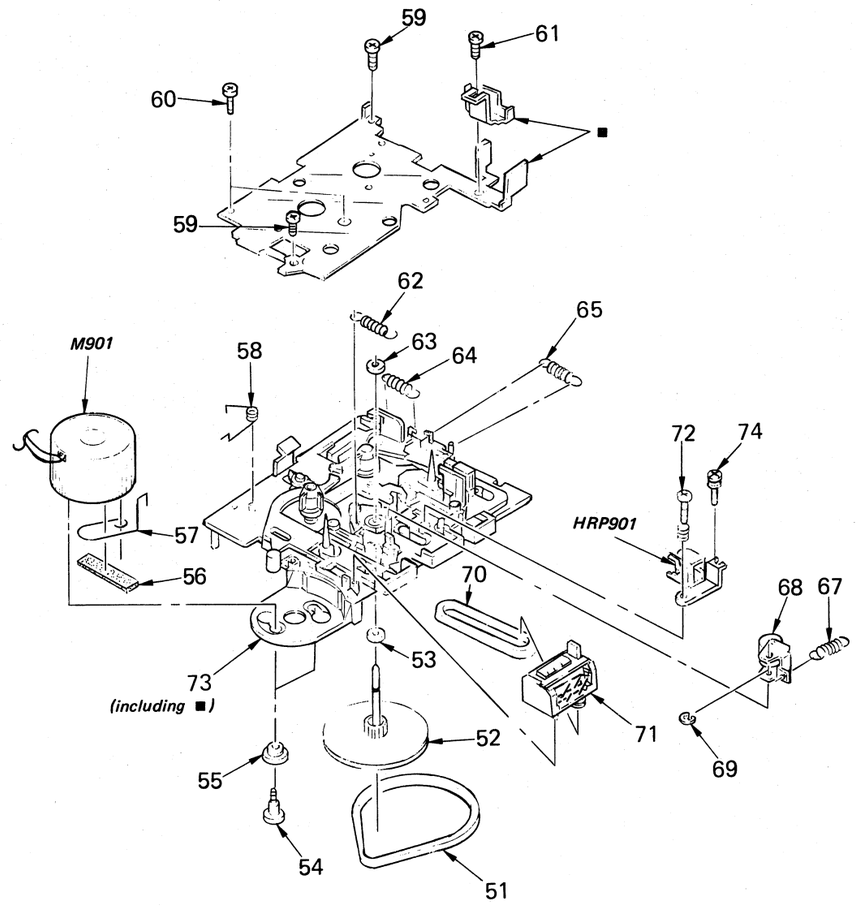
- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ ↑
  Cabinet's Color Parts Color

(1) GENERAL



No.	Part No.	Descriptrion	Remarks
1	3-349-209-01	BUTTON (REC)	
2	3-349-247-01	KNOB (FR)	
3	3-349-210-01	BUTTON (PLAY)	
4	3-349-211-01	BUTTON (STOP)	
5	3-349-243-01	FRAME, ORNAMENTAL	
6	3-349-252-01	LEVER (EJECT)	
7	3-349-225-01	SHAFT (SP)	
8	3-349-239-01	SHAFT (BATTERY CASE LID)	
9	3-349-241-01	SPRING, TORSION	
10	X-3349-205-1	PANEL (BATTERY CASE LID) ASSY	
11	3-349-238-01	TERMINAL BOARD	
12	3-349-244-01	LEVER (BATTERY CASE LID LOCK)	
13	3-349-242-01	SPRING (H), TORSION	
14	X-3349-209-1	CABINET ASSY	
15	3-349-258-01	PLATE, BLIND	
16	X-3349-207-1	HOLDER ASSY, CASSETTE	
17	3-704-197-02	SCREW (M1.4X1.6), NYLON	
18	X-3349-204-1	PANEL (CASSETTE) ASSY	
19	3-704-197-52	SCREW (M1.4X3.5), NYLON	
20	X-3349-206-1	STRAP (SHAFT) ASSY, HAND	
21	3-349-223-01	SCREW (M1.4X2), SPECIAL HEAD	
22	7-624-102-04	STOP RING 1.5, TYPE -E	
23	3-349-240-01	BRACKET (PANEL)	
24	3-349-250-01	KNOB (SPEED)	
25	3-349-249-01	KNOB (PAUSE)	
26	3-349-224-01	SCREW (B1.7) (G), TAPPING	
27	3-342-155-21	PLATE, BLIND	
28	X-3349-210-1	PANEL (REAR) ASSY	
29	3-349-251-01	HOLDER, MICROPHONE	
30	3-349-248-01	KNOB (VOR)	
31	3-349-220-01	SPACER (PC BOARD)	
32	3-342-156-21	SCREW (+PWH 1.4X9)	
33	3-303-999-01	SPACER, RUBBER	
34	3-831-441-XX	SPACER, KNOB	
35	3-349-234-01	SHAFT (DIA.1)	
36	3-349-276-01	EYELET (DIA. 0.95X2.6)	
901	A-3015-678-A	PC BOARD ASSY, AUDIO	
SP901	1-544-033-11	SPEAKER	

(2) MECHANISM (MZ-88-14)



No.	Part No.	Descriptrion	Remarks
51	3-349-202-01	BELT	
52	X-3349-201-1	FLYWHEEL ASSY	
53	3-547-734-00	WASHER	
54	3-303-809-00	SCREW (M1.7X2.0), SPECIAL HEAD	
55	3-349-205-01	CUSHION (MOTOR)	
56	*3-349-274-01	CUSHION	
57	3-349-212-01	SPRING (M GROUND)	
58	3-342-187-01	SPRING	
59	7-627-850-67	SCREW, PRECISION +P 1.4X4	
60	7-627-551-67	SCREW, PRECISION +P 1.4X3.5	
61	7-627-551-77	SCREW, PRECISION +P 1.4X4 TYPE1	
62	3-342-101-01	SPRING, TENSION	
63	3-315-384-41	WASHER, STOPPER	
64	3-342-186-01	SPRING, TENSION	
65	3-342-102-01	SPRING, TENSION	
67	3-342-173-01	SPRING, TENSION	
68	X-3342-102-1	PINCH LEVER ASSY	
69	3-590-768-00	RING (A), E	
70	3-561-645-00	BELT, C	
71	1-548-607-11	COUNTER, TAPE (ULTRA SMALL)	
72	3-318-203-31	SCREW (B1.7X8), TAPPING	
73	*A-3013-356-A	MECHANISM	
74	3-342-181-11	SCREW, AZ	
HRP901	1-543-432-11	HEAD, MAGNETIC (REC/PB)	
M901	1-541-597-11	MOTOR, DC	

SECTION 5
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

Ref.No.	Part No.	Description		
901	A-3015-678-A	PC BOARD ASSY, AUDIO		
C101	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C103	1-162-969-11	CERAMIC CHIP 0.0068MF	10%	25V
C104	1-135-150-21	TANTAL. CHIP 3.3MF	20%	6.3V
C105	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V
C106	1-163-809-11	CERAMIC CHIP 0.047MF	10%	25V
C107	1-135-131-11	TANTAL. CHIP 22MF	20%	4V
C108	1-135-170-21	TANTAL. CHIP 6.8MF	20%	4V
C109	1-163-213-00	CERAMIC CHIP 0.0022MF	10%	50V
C110	1-164-156-11	CERAMIC CHIP 0.1MF		25V
C111	1-126-208-11	ELECT CHIP 47MF	20%	4V
C112	1-135-157-21	TANTAL. CHIP 10MF	20%	4V
C113	1-135-131-11	TANTAL. CHIP 22MF	20%	4V
C114	1-135-157-21	TANTAL. CHIP 10MF	20%	4V
C115	1-135-131-11	TANTAL. CHIP 22MF	20%	4V
C116	1-135-131-11	TANTAL. CHIP 22MF	20%	4V
C117	1-126-208-11	ELECT CHIP 47MF	20%	4V
C118	1-164-156-11	CERAMIC CHIP 0.1MF		25V
C119	1-164-156-11	CERAMIC CHIP 0.1MF		25V
C120	1-135-170-21	TANTAL. CHIP 6.8MF	20%	4V
C121	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C122	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V
C123	1-162-969-11	CERAMIC CHIP 0.0068MF	10%	25V
C124	1-126-208-11	ELECT CHIP 47MF	20%	4V
C125	1-126-208-11	ELECT CHIP 47MF	20%	4V
C126	1-162-638-11	CERAMIC CHIP 1MF		16V
C128	1-164-156-11	CERAMIC CHIP 0.1MF		25V
C129	1-162-638-11	CERAMIC CHIP 1MF		16V
C130	1-126-209-11	ELECT CHIP 100MF	20%	4V
C131	1-126-246-11	ELECT CHIP 220MF	20%	4V
C132	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V
C133	1-163-037-11	CERAMIC CHIP 0.022MF	10%	25V
C134	1-163-035-00	CERAMIC CHIP 0.047MF		50V
C135	1-162-967-11	CERAMIC CHIP 0.0033MF	10%	50V
C136	1-162-638-11	CERAMIC CHIP 1MF		16V
C137	1-135-157-21	TANTAL. CHIP 10MF	20%	4V
C139	1-126-209-11	ELECT CHIP 100MF	20%	4V
C140	1-162-970-11	CERAMIC CHIP 0.01MF	10%	25V
C141	1-162-964-11	CERAMIC CHIP 0.001MF	10%	50V
C142	1-162-964-11	CERAMIC CHIP 0.001MF	10%	50V
C143	1-163-141-00	CERAMIC CHIP 0.001MF	10%	50V
C144	1-162-964-11	CERAMIC CHIP 0.001MF	10%	50V
C145	1-162-964-11	CERAMIC CHIP 0.001MF	10%	50V
C146	1-162-964-11	CERAMIC CHIP 0.001MF	10%	50V
C147	1-163-017-00	CERAMIC CHIP 0.0047MF	10%	50V
C160	1-135-170-21	TANTAL. CHIP 6.8MF	20%	4V
C601	1-135-170-21	TANTAL. CHIP 6.8MF	20%	4V
C602	1-135-157-21	TANTAL. CHIP 10MF	20%	4V
C701	1-163-063-00	CERAMIC CHIP 0.022MF	10%	50V
C702	1-164-156-11	CERAMIC CHIP 0.1MF		25V
C703	1-162-964-11	CERAMIC CHIP 0.001MF	10%	50V
C704	1-135-157-21	TANTAL. CHIP 10MF	20%	4V
D901	8-719-915-54	DIODE GL-9PR10 (REC/BATT)		
HRP901	1-543-432-11	HEAD, MAGNETIC (REC/PB)		
IC101	8-752-034-90	IC CXA1347N		
IC102	8-759-977-64	IC BA3818F		
IC103	8-759-701-51	IC NJM2072M		
IC601	8-759-804-43	IC LA5521M		
J101	1-507-999-21	JACK (EAR/MIC)		
JR101	1-216-295-00	METAL GLAZE 0	5%	1/10W
JR102	1-216-295-00	METAL GLAZE 0	5%	1/10W
JR104	1-216-296-00	METAL GLAZE 0	5%	1/8W
JR105	1-216-295-00	METAL GLAZE 0	5%	1/10W
JR106	1-216-295-00	METAL GLAZE 0	5%	1/10W
JR108	1-216-295-00	METAL GLAZE 0	5%	1/10W
JR109	1-216-295-00	METAL GLAZE 0	5%	1/10W
JR110	1-216-296-00	METAL GLAZE 0	5%	1/8W
JR112	1-216-295-00	METAL GLAZE 0	5%	1/10W
JR113	1-216-296-00	METAL GLAZE 0	5%	1/8W
JR114	1-216-296-00	METAL GLAZE 0	5%	1/8W
JR115	1-216-295-00	METAL GLAZE 0	5%	1/10W
JR116	1-216-296-00	METAL GLAZE 0	5%	1/8W
M901	1-541-597-11	MOTOR, DC		
MIC901	8-814-204-00	MICROPHONE, BUILT-IN (C-1016)		
Q101	8-729-402-31	TRANSISTOR 2SD1819AQ		
Q102	8-729-162-43	TRANSISTOR 2SB624-BV3		
Q103	8-729-402-31	TRANSISTOR 2SD1819AQ		
Q104	8-729-402-93	TRANSISTOR UN5214		
Q105	8-729-162-43	TRANSISTOR 2SB624-BV3		
Q106	8-729-402-31	TRANSISTOR 2SD1819AQ		
Q107	8-729-402-93	TRANSISTOR UN5214		
Q108	8-729-402-16	TRANSISTOR XN1501		
Q109	8-729-402-31	TRANSISTOR 2SD1819AQ		
Q110	8-729-402-93	TRANSISTOR UN5214		
Q111	8-729-402-31	TRANSISTOR 2SD1819AQ		
Q112	8-729-402-31	TRANSISTOR 2SD1819AQ		
Q113	8-729-402-55	TRANSISTOR 2SB1218A-R		
Q114	8-729-402-31	TRANSISTOR 2SD1819A		
Q115	8-729-402-55	TRANSISTOR 2SB1218A-R		
Q116	8-729-402-31	TRANSISTOR XN1501		

Ref.No.	Part No.	Description			
R101	1-216-825-11	METAL GLAZE	2.2K	5%	1/16W
R102	1-216-037-00	METAL GLAZE	330	5%	1/10W
R103	1-216-833-11	METAL GLAZE	10K	5%	1/16W
R104	1-216-827-11	METAL GLAZE	3.3K	5%	1/16W
R105	1-216-848-11	METAL GLAZE	180K	5%	1/16W
R106	1-216-834-11	METAL GLAZE	12K	5%	1/16W
R107	1-216-835-11	METAL GLAZE	15K	5%	1/16W
R108	1-216-845-11	METAL GLAZE	100K	5%	1/16W
R109	1-216-851-11	METAL GLAZE	330K	5%	1/16W
R110	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R111	1-216-833-11	METAL GLAZE	10K	5%	1/16W
R112	1-216-828-11	METAL GLAZE	3.9K	5%	1/16W
R113	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R114	1-216-833-11	METAL GLAZE	10K	5%	1/16W
R115	1-216-031-00	METAL GLAZE	180	5%	1/10W
R116	1-216-792-11	METAL GLAZE	3.9	5%	1/16W
R117	1-216-792-11	METAL GLAZE	3.9	5%	1/16W
R118	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R119	1-216-831-11	METAL GLAZE	6.8K	5%	1/16W
R120	1-216-833-11	METAL GLAZE	10K	5%	1/16W
R122	1-216-810-11	METAL GLAZE	120	5%	1/16W
R123	1-216-815-11	METAL GLAZE	330	5%	1/16W
R124	1-216-801-11	METAL GLAZE	22	5%	1/16W
R126	1-216-847-11	METAL GLAZE	150K	5%	1/16W
R128	1-216-845-11	METAL GLAZE	100K	5%	1/16W
R129	1-216-821-11	METAL GLAZE	1K	5%	1/16W
R131	1-216-829-11	METAL GLAZE	4.7K	5%	1/16W
R132	1-216-838-11	METAL GLAZE	27K	5%	1/16W
R134	1-216-821-11	METAL GLAZE	1K	5%	1/16W
R135	1-216-833-11	METAL GLAZE	10K	5%	1/16W
R136	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R137	1-216-822-11	METAL GLAZE	1.2K	5%	1/16W
R138	1-216-845-11	METAL GLAZE	100K	5%	1/16W
R139	1-216-815-11	METAL GLAZE	330	5%	1/16W
R140	1-216-845-11	METAL GLAZE	100K	5%	1/16W
R141	1-216-831-11	METAL GLAZE	6.8K	5%	1/16W
R142	1-216-838-11	METAL GLAZE	27K	5%	1/16W
R143	1-216-813-11	METAL GLAZE	220	5%	1/16W
R145	1-216-829-11	METAL GLAZE	4.7K	5%	1/16W
R146	1-216-829-11	METAL GLAZE	4.7K	5%	1/16W
R147	1-216-851-11	METAL GLAZE	330K	5%	1/16W
R148	1-216-825-11	METAL GLAZE	2.2K	5%	1/16W
R150	1-216-826-11	METAL GLAZE	2.7K	5%	1/16W
R151	1-216-833-11	METAL GLAZE	10K	5%	1/16W
R160	1-216-823-11	METAL GLAZE	1.5K	5%	1/16W

Ref.No.	Part No.	Description			
R161	1-216-841-11	METAL GLAZE	47K	5%	1/16W
R162	1-216-833-11	METAL GLAZE	10K	5%	1/16W
R601	1-216-824-11	METAL GLAZE	1.8K	5%	1/16W
R602	1-216-824-11	METAL GLAZE	1.8K	5%	1/16W
R604	1-216-829-11	METAL GLAZE	4.7K	5%	1/16W
R605	1-216-792-11	METAL GLAZE	3.9	5%	1/16W
R606	1-216-810-11	METAL GLAZE	120	5%	1/16W
R701	1-216-829-11	METAL GLAZE	4.7K	5%	1/16W
R702	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R704	1-216-833-11	METAL GLAZE	10K	5%	1/16W
R705	1-216-838-11	METAL GLAZE	27K	5%	1/16W
RV101	1-238-318-11	RES, VAR, CARBON 10K(VOL;INCLUDING KNOB)			
RV601	1-238-320-11	RES, ADJ, CERMET 4.7K (SPEED ADJ 2.4)			
RV602	1-238-320-11	RES, ADJ, CERMET 4.7K (SPEED ADJ 1.2)			
S101	1-571-694-11	SWITCH, SLIDE (REC/PB)			
S102	1-571-506-21	SWITCH, SLIDE (TAPE SPEED)			
S103	1-570-395-11	SWITCH, LEAF (POWER)			
S104	1-571-275-11	SWITCH, SLIDE (VOR)			
S105	1-570-395-11	SWITCH, LEAF (FF/REW)			
S106	1-571-277-11	SWITCH, SLIDE (MIC SENS)			
S601	1-571-275-11	SWITCH, SLIDE (PAUSE)			
SP901	1-544-033-11	SPEAKER			
T101	1-433-286-11	TRANSFORMER, BIAS OSCILLATION			
TH601	1-808-520-11	THERMISTOR, POSITIVE			

ACCESSORY & PACKING MATERIAL

1-542-108-11	MICROPHONE, ELECTRET CONDENSER (INCLUDING CONTROL)
3-349-265-01	STRAP, HAND
3-349-266-01	FRAME, INNER, CASE
3-349-270-01	CASE, CARRYING
*3-349-271-01	(US).....INDIVIDUAL CARTON
*3-349-272-01	(Canadian,UK,E)...INDIVIDUAL CARTON
3-786-545-11	MANUAL, INSTRUCTION
3-786-545-41	(AEP).....MANUAL, INSTRUCTION
8-952-411-90	HEADPHONE MDR-E130C SET